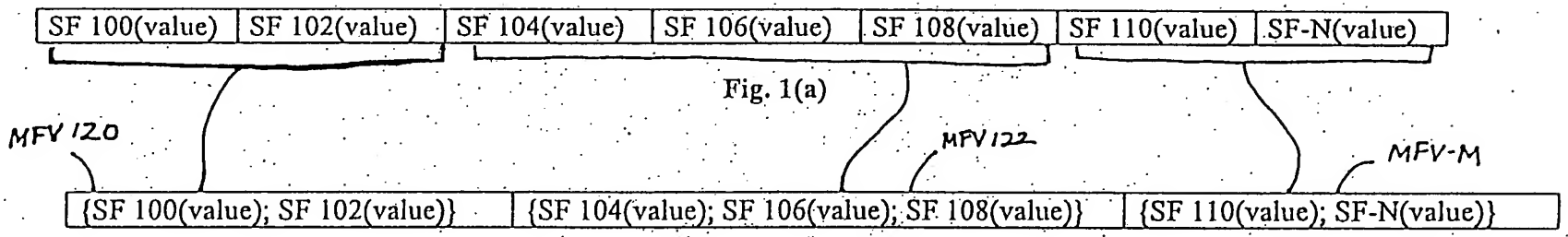

Fig. 1(a)

Fig. 1(b)

{SF100(value); SF102(value)}; {SF104(value); SF106(value); SF108(value)}; {SF110(value); SF-N(value)}	Entry 130
{SF100(value); SF102(value)}; {SF104(value); SF106(value); SF108(value)}; {SF110(*); SF-N(*)}	Entry 132
{SF100(value); SF102(value)}; {SF104(*); SF106(*); SF108(*)}; {SF110(value); SF-N(value)}	Entry 134
{SF100(*); SF102(*)}; {SF104(value); SF106(value); SF108(value)}; {SF110(value); SF-N(value)}	Entry 136
{SF100(value); SF102(value)}; {SF104(*); SF106(*); SF108(*)}; {SF110(*); SF-N(*)}	Entry 138
{SF100(*); SF102(*)}; {SF104(value); SF106(value); SF108(value)}; {SF110(*); SF-N(*)}	Entry 140
{SF100(*); SF102(*)}; {SF104(*); SF106(*); SF108(*)}; {SF110(value); SF-N(value)}	Entry-P

Fig. 1(c)

{SF100(value); SF102(value)}; {SF104(value); SF106(value); SF108(value)}; {(SF110(value); SF-N(value)}	Entry 130
{SF100(value); SF102(value)}; {SF104(value); SF106(value); SF108(value)}; {(SF110(*); SF-N(*)}	Entry 132
{SF100(value); SF102(value)}; {(SF110(value); SF-N(value)}; {SF104(*); SF106(*); SF108(*)}	Entry 134
{SF104(value); SF106(value); SF108(value)}; {(SF110(value); SF-N(value)}; {SF100(*); SF102(*)}	Entry 136
{SF100(value); SF102(value)}; {SF104(*); SF106(*); SF108(*)}; {(SF110(*); SF-N(*)}	Entry 138
{SF104(value); SF106(value); SF108(value)}; {SF100(*); SF102(*)}; {(SF110(*); SF-N(*)}	Entry 140
{(SF110(value); SF-N(value)}{SF100(*); SF102(*)}; {SF104(*); SF106(*); SF108(*)}	Entry-P

Fig. 1(d)

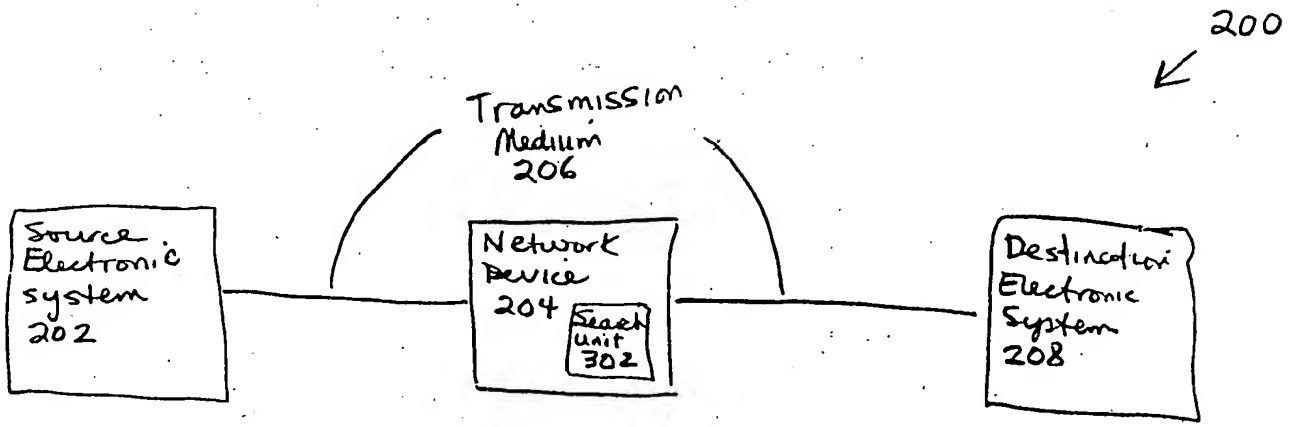
200
Transmission Medium 206
Source Electronic system 202
Network Device 204
Search unit 302
Destination Electronic System 208

Fig. 2

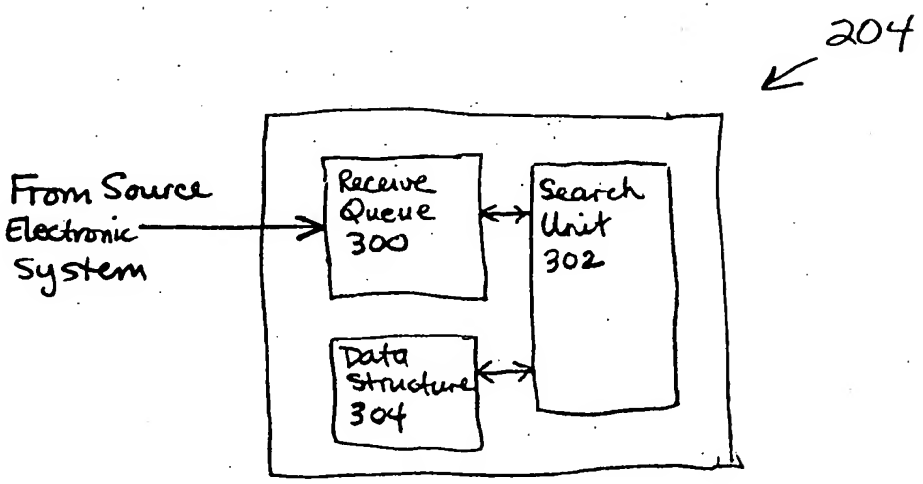
204
From Source Electronic System
Receive Queue 300
Search Unit 302
Data Structure 304

Fig. 3

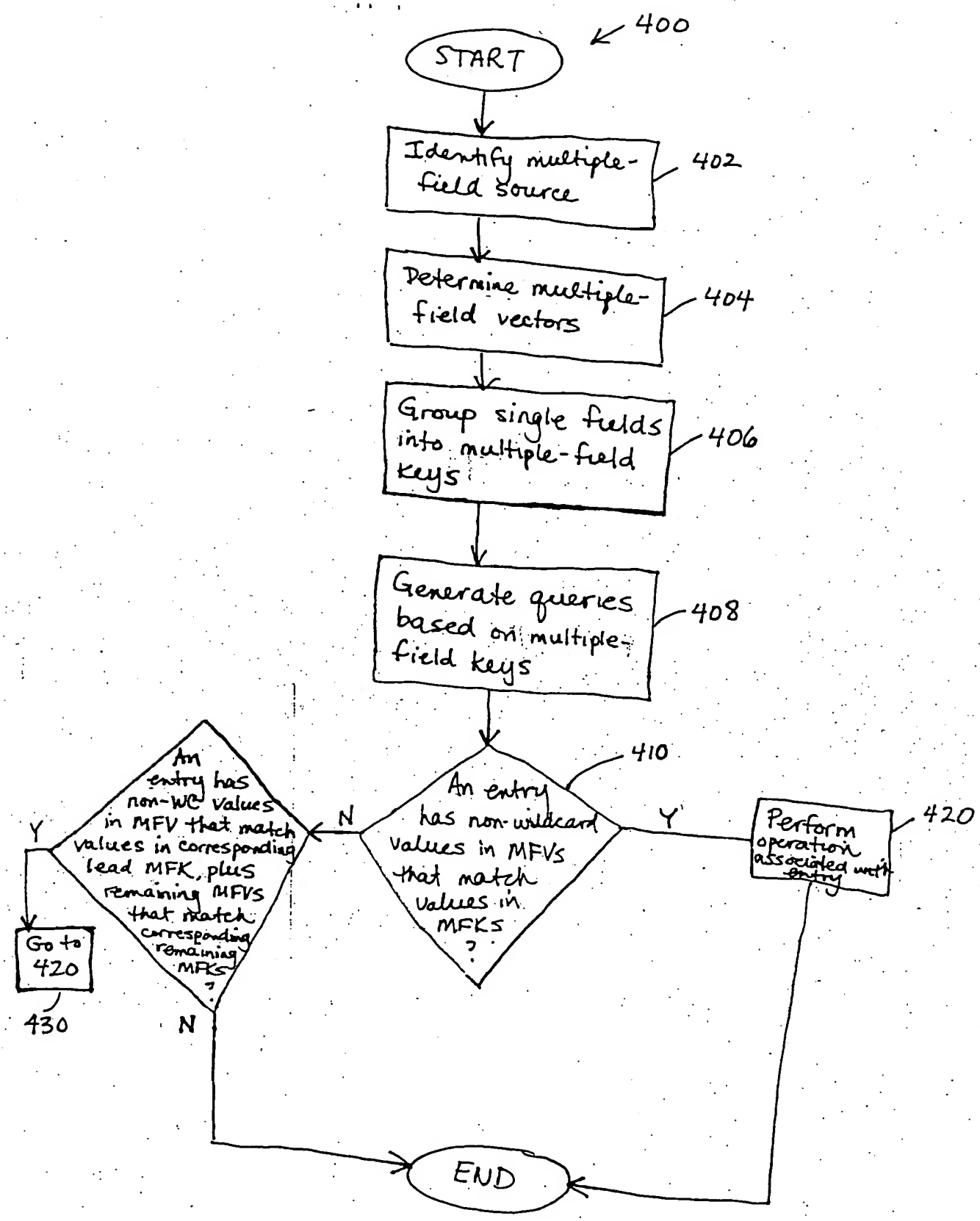
400
START
Identify multiple-field source
402
Determine multiple-field vectors
404
Group single fields into multiple-field keys
406
Generate queries based on multiple-field keys
408
410
An entry has non-wildcard values in MFVs that match values in MFKs ?
Y
Perform operation associated with entry
420
N
An entry has non-WC values in MFV that match values in corresponding lead MFK, plus remaining MFVs that match corresponding remaining MFKs ?
Y
Go to 420
430
N
END

Fig. 4

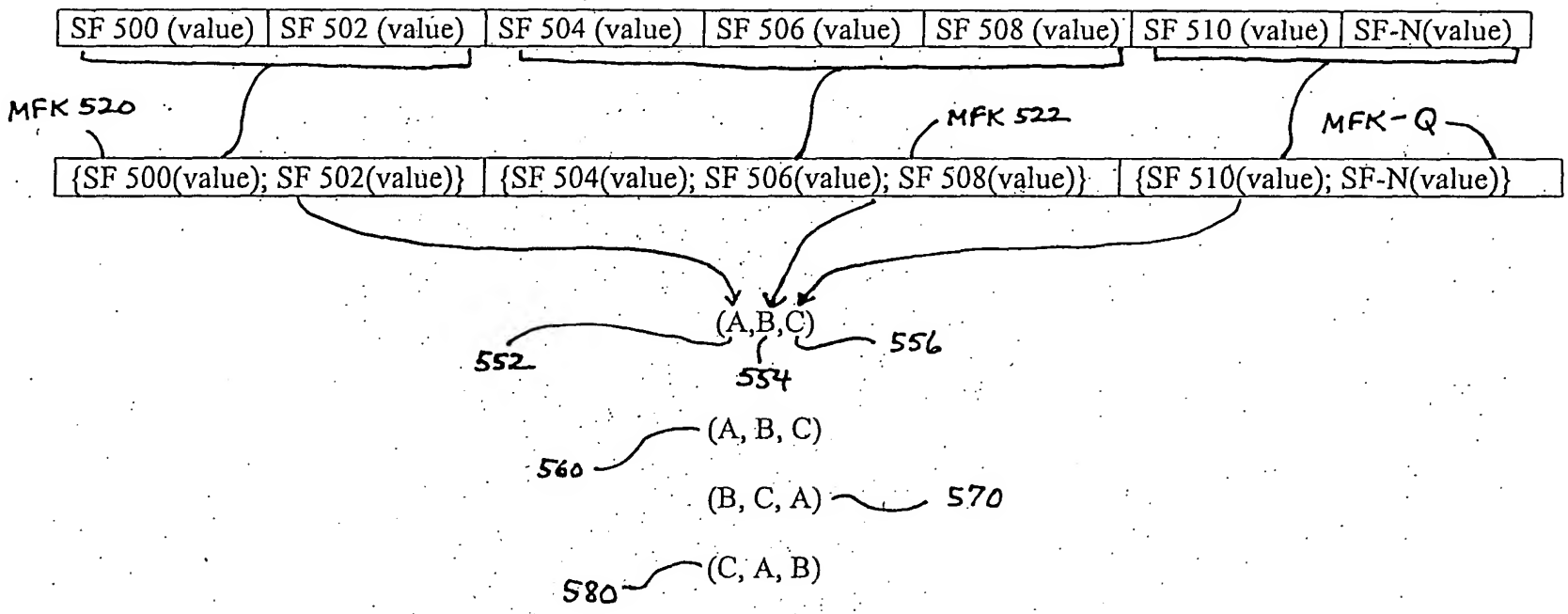

Fig. 5(a)

560

(A, B, C) covers (A, B, C), (A, B, *), (A, *,*) and (,*, *, *)

570 (B, C, A) covers (B, C, A) [already covered by (A, B, C)], (B, C, *), and (B, *, *)

(C, B, A) covers (C, A, B) [already covered by (A, B, C) and (B, C, A)], (C, A, *), and (C, *, *)

580

Fig. 5(b)